COLD SPRINGS SUBDIVISION (PWS 5070015)
SOURCE WATER ASSESSMENT FINAL REPORT

December 28, 2000

State of Idaho
Department of Environmental Quality

Executive Summary

Under the Safe Drinking Water Act Amendments of 1996, all states are required by the U.S. Environmental Protection Agency to assess every source of public drinking water for its relative sensitivity to contaminants regulated by the Act. This assessment is based on a land use inventory of the designated assessment area and sensitivity factors associated with the wells and aquifer characteristics.

This report, *Source Water Assessment for the Cold Springs Subdivision, Idaho*, describes the public drinking water system, the boundaries of the zones of water contribution, and the associated potential contaminant sources located within these boundaries. This assessment should be used as a planning tool, taken into account with local knowledge and concerns, to develop and implement appropriate protection measures for this source. **The results should not be used as an absolute measure of risk and they should not be used to undermine public confidence in the water system.**

Cold Springs Subdivision drinking water system consists of one well. Despite a high rating in hydrologic sensitivity and numerous potential sources of contamination in the Ketchum area, the moderate rating for system construction caused the well to have a moderate susceptibility to volatile organic contamination, synthetic organic contamination, inorganic contamination, and microbial contamination. In September 1993, the synthetic organic contaminant Polychlorinated Biphenyls (PCBs) was detected above the Maximum Contaminant Level. PCBs have not been detected in the past four sampling tests. The inorganic contaminants fluoride, nitrate, mercury, chromium, selenium, silver, and lead have been detected in the well water, but at levels below the Maximum Contaminant Levels for drinking water. No other categories of contamination have exceeded regulatory limits in the well water.

This assessment should be used as a basis for determining appropriate new protection measures or re-evaluating existing protection efforts. No matter what ranking a source receives, protection is always important. Whether the source is currently located in a "pristine" area or an area with numerous industrial and/or agricultural land uses that require education and surveillance, the way to ensure good water quality in the future is to act now to protect valuable water supply resources.

For Cold Springs Subdivision, source water protection activities should focus on sustaining and implementing practices aimed at wellhead protection. Issues raised in the recent 1997 Drinking Water Supply Report should be addressed. Maintaining the wellhead and surface seal will keep the susceptibility ratings at moderate for all categories. Other practices aimed at reducing the movement of contaminants within the designated source water areas should be investigated. Disinfection practices could be implemented if microbial contamination ever became a concern. Most of the designated areas are outside the direct jurisdiction of Cold Springs Subdivision. Partnerships with state and local agencies and industry groups should be established and are critical to success. Due to the time involved with the movement of groundwater, source water protection activities should be aimed at long-term management strategies even though these strategies may not yield results in the near term.

A community with a fully developed source water protection program will incorporate many strategies. For assistance in developing protection strategies please contact the Twin Falls Regional Office of the Idaho Department of Environmental Quality or the Idaho Rural Water Association.

SOURCE WATER ASSESSMENT FOR COLD SPRINGS SUBDIVISION, IDAHO

Section 1. Introduction - Basis for Assessment

The following sections contain information necessary to understand how and why this assessment was conducted. **It is important to review this information to understand what the ranking of this source means.** A map showing the delineated source water assessment area and the inventory of significant potential sources of contamination identified within that area are attached. The list of significant potential contaminant source categories and their rankings used to develop the assessment also is attached.

Background

Under the Safe Drinking Water Act Amendments of 1996, all states are required by the U.S. Environmental Protection Agency (EPA) to assess every source of public drinking water for its relative susceptibility to contaminants regulated by the Safe Drinking Water Act. This assessment is based on a land use inventory of the delineated assessment area and sensitivity factors associated with the wells and aquifer characteristics.

Level of Accuracy and Purpose of the Assessment

Since there are over 2,900 public water sources in Idaho, there is limited time and resources to accomplish the assessments. All assessments must be completed by May of 2003. An in-depth, site-specific investigation of each significant potential source of contamination is not possible. **Therefore, this assessment should be used as a planning tool, taken into account with local knowledge and concerns, to develop and implement appropriate protection measures for this source. The results should <u>not be</u> used as an absolute measure of risk and they should <u>not be</u> used to undermine public confidence in the water system.**

The ultimate goal of the assessment is to provide data to local communities to develop a protection strategy for their drinking water supply system. The Idaho Department of Environmental Quality (IDEQ) recognizes that pollution prevention activities generally require less time and money to implement than treatment of a public water supply system once it has been contaminated. IDEQ encourages communities to balance resource protection with economic growth and development. The decision as to the amount and types of information necessary to develop a source water protection program should be determined by the local community based on its own needs and limitations. Wellhead or source water protection is one facet of a comprehensive growth plan, and it can complement ongoing local planning efforts.

Section 2. Conducting the Assessment

General Description of the Source Water Quality

Cold Springs Subdivision is a community system serving approximately 300 people through 74 connections. It is located in Blaine County, two miles south of the City of Ketchum, approximately 200 yards south of the Canyon and Gimlet roads intersection, in the Big Wood River valley (Figure 1). The public drinking water system for Cold Springs Subdivision is comprised of one well.

No current, long term, significant water chemistry problems have been recorded in the well water. No inorganic contaminants (IOC) (i.e. nitrate) have been recorded above the Maximum Contaminant Level (MCL). Volatile organic contaminants (VOCs) have never been detected in any of the drinking water. Total coliform bacteria have never been recorded on a repeat test. In September 1993, the synthetic organic contaminant (SOC) Polychlorinated Biphenyls (PCBs) was detected above the MCL. PCBs have not been detected in the past four subsequent sampling tests. Though no significant water chemistry problems currently exist, the possibility of contamination from industrial and urban uses remains high.

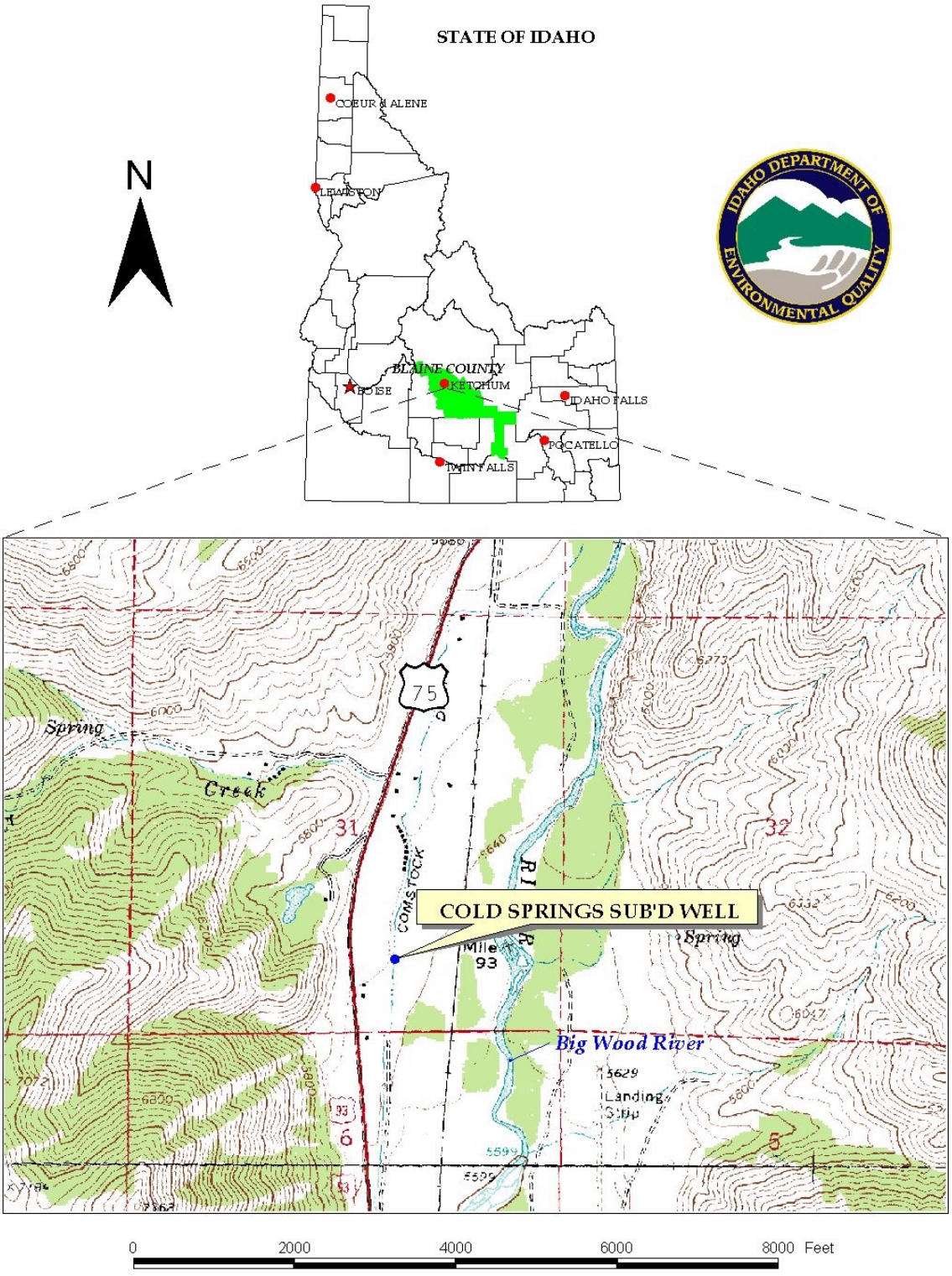
Defining the Zones of Contribution--Delineation

The delineation process establishes the physical area around a well that will become the focal point of the assessment. The process includes mapping the boundaries of the zone of contribution into time of travel zones (zones indicating the number of years necessary for a particle of water to reach a well) for water in the aquifer. IDEQ used a refined computer model approved by the EPA in determining the 3-year (Zone 1B), 6-year (Zone 2), and 10-year (Zone 3) time of travel for water associated with the Big Wood River aquifer in the vicinity of Cold Springs Subdivision. The computer model used site specific data, assimilated by IDEQ from a variety of sources including the Cold Springs Subdivision well log, other local well logs, and various reports (Castelin and Winner, 1975; Frenzel, 1989). The delineation can best be described as bounding the valley floor north to and including the City of Ketchum (a total of more than 5 miles). The actual data used by IDEQ in determining the source water assessment delineation area is available upon request.

Identifying Potential Sources of Contamination

A potential source of contamination is defined as any facility or activity that stores, uses, or produces, as a product or by-product, the contaminants regulated under the Safe Drinking Water Act and has a sufficient likelihood of releasing such contaminants at levels that could pose a concern relative to drinking water sources. The goal of the inventory process is to locate and describe those facilities, land uses, and environmental conditions that are potential sources of groundwater contamination. The locations of potential sources of contamination within the delineation areas were obtained by field surveys conducted by IDEQ and from available databases.

FIGURE 1 - Geographic Location of Cold Springs Subdivision



The dominant land uses outside Cold Springs Subdivision area vary from undeveloped and residential to urban uses. Land use within the immediate area of the wellhead consists of residential uses.

It is important to understand that a release may never occur from a potential source of contamination provided they are using best management practices. Many potential sources of contamination are regulated at the federal level, state level, or both to reduce the risk of release. Therefore, when a business, facility, or property is identified as a potential contaminant source, this should not be interpreted to mean that this business, facility, or property is in violation of any local, state, or federal environmental law or regulation. What it does mean is that the potential for contamination exists due to the nature of the business, industry, or operation. There are a number of methods that water systems can use to work cooperatively with potential sources of contamination. These involve educational visits and inspections of stored materials. Many owners of such facilities may not even be aware that they are located near a public water supply well.

Contaminant Source Inventory Process

A two-phased contaminant inventory of the study area was conducted during the spring and summer of 2000. The first phase involved identifying and documenting potential contaminant sources within Cold Springs Subdivision Source Water Assessment Area through the use of computer databases and Geographic Information System (GIS) maps developed by IDEQ. The second or enhanced phase of the contaminant inventory involved contacting the operator to validate the sources identified in phase one and to add any additional potential sources in the area. This task was undertaken with the assistance of Art Hall of Cold Springs Subdivision and John Bokor of the Idaho Rural Water Association.

Cold Springs Subdivision well has a total of 52 potential contaminant sites and two additional potential contaminant sources within the delineated source water areas (see Table 1, Figures 2, 3). They consist of a number of general contractors, automotive services, furniture manufacturers, outdoor adventure businesses, commercial photographers, and various other businesses. There are businesses with underground storage tanks (USTs) and completed and uncompleted leaking underground storage tank (LUST) cleanups. Additionally there are National Pollutant Discharge Elimination System (NPDES) sites, Superfund Amendments and Reauthorization Act (SARA) sites, a Comprehensive Environmental Response Compensation and Liability Act (CERCLA) site, the Big Wood River, and Highway 75. Since the groundwater aquifer is hydraulically connected to the surface water system (Luttrell and Brockway, 1984), the Big Wood River will be considered a potential source of contamination. Highway 75 is also considered a potential contaminant source because of the possibility of spills and accidents.

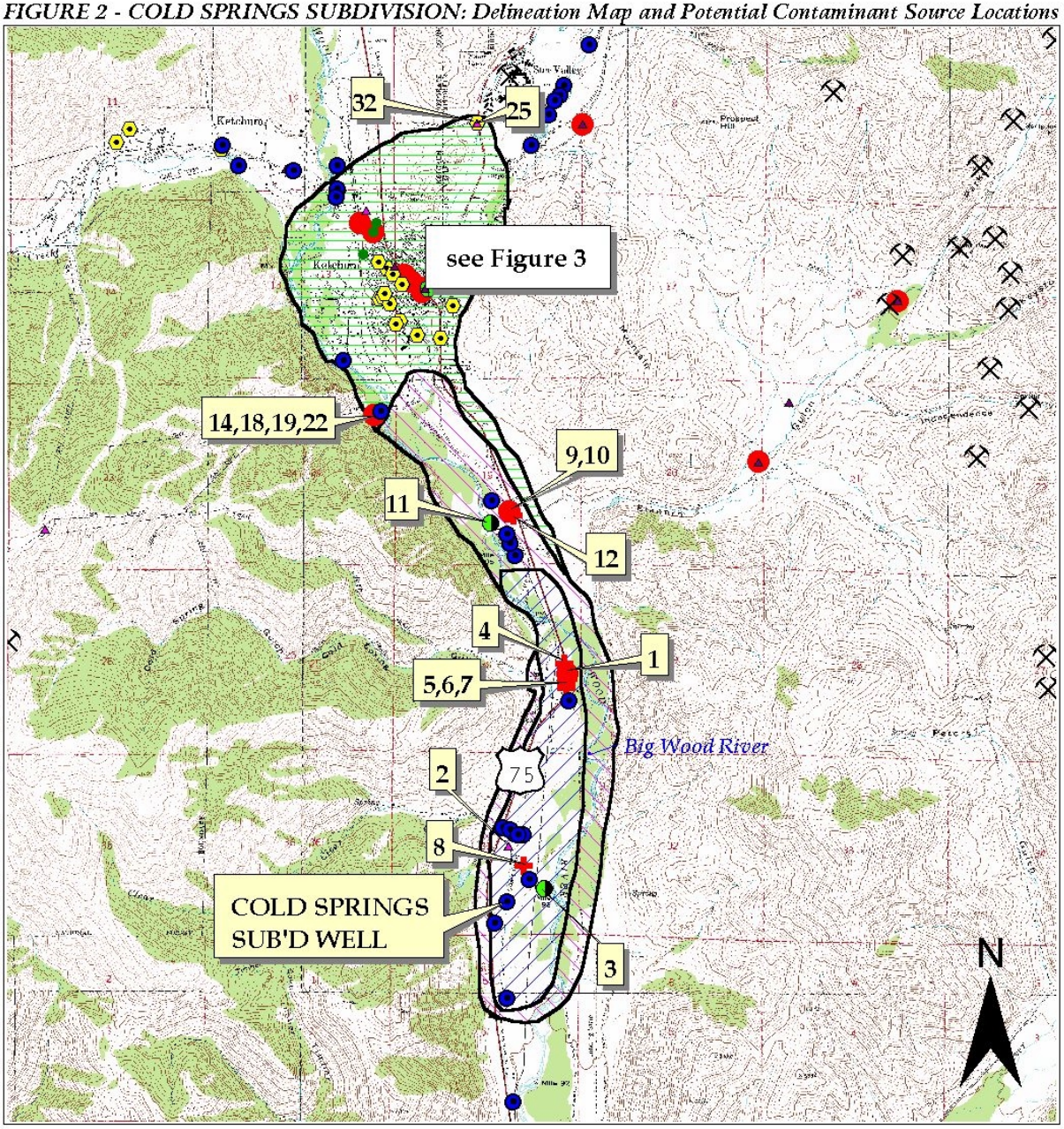
Table 1. Cold Springs Subdivision, Potential Contaminant Inventory

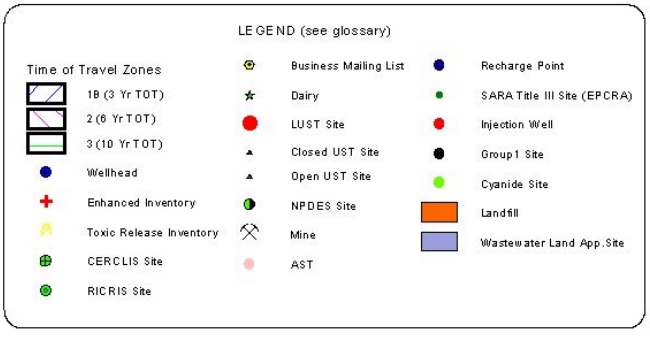
SITE #	Source Description	TOT Zone (years)	Source of Information	Potential Contaminants
1	UST-closed, LUST-complete	0-3	Database Search	VOC, SOC
2	UST-open	0-3	Database Search	VOC, SOC
3	NPDES	0-3	Database Search	IOC
4	Fleet Terminal	0-3	Enhanced Inventory	VOC, SOC
5	Furniture Manufacturer	0-3	Enhanced Inventory	IOC, SOC
6	Furniture Manufacturer	0-3	Enhanced Inventory	IOC, SOC
7	Machine Shop	0-3	Enhanced Inventory	VOC
8	Transfer Station	0-3	Enhanced Inventory	IOC, VOC, SOC
	Big Wood River	0-10	Database Search	IOC, VOC, SOC, Microbes
	Highway 75	0-10	Database Search	IOC, VOC, SOC, Microbes

9	UST-closed, LUST-complete	3-6	Database Search	VOC, SOC
10	LUST-complete	3-6	Database Search	VOC, SOC
11	NPDES	3-6	Database Search	IOC
12	Automotive-Repair	3-6	Enhanced Inventory	VOC, SOC
13	UST-closed, LUST-incomplete	6-10	Database Search	VOC, SOC
14	UST-open, LUST-complete	6-10	Database Search	VOC, SOC
15	UST-closed, LUST-complete	6-10	Database Search	VOC, SOC
16	UST-closed, LUST-complete	6-10	Database Search	VOC, SOC
17	LUST-complete	6-10	Database Search	VOC, SOC
18	LUST-complete	6-10	Database Search	VOC, SOC
19	LUST-complete	6-10	Database Search	VOC, SOC
20	UST-closed, LUST-complete	6-10	Database Search	VOC, SOC
21	UST-open, LUST-complete	6-10	Database Search	VOC, SOC
22	LUST-complete	6-10	Database Search	VOC, SOC
23	UST-closed	6-10	Database Search	VOC, SOC
24	UST-open	6-10	Database Search	VOC, SOC
25	UST-open	6-10	Database Search	VOC, SOC
26	UST-closed	6-10	Database Search	VOC, SOC
27	General Contractor	6-10	Database Search	VOC, SOC
28	General Contractor	6-10	Database Search	VOC, SOC
29	General Contractor	6-10	Database Search	VOC, SOC
30	Aircraft Charter	6-10	Database Search	VOC, SOC
31	Taxicabs	6-10	Database Search	VOC, SOC
32	Building Contractor	6-10	Database Search	VOC, SOC
33	Cleaner	6-10	Database Search	VOC
34	Motorcycle-Repair	6-10	Database Search	VOC, SOC
35	Commercial Photographer	6-10	Database Search	IOC, VOC
36	General Contractor	6-10	Database Search	VOC, SOC
37	Publisher	6-10	Database Search	IOC, VOC
38	General Contractor	6-10	Database Search	VOC, SOC
39	Commercial Photographer	6-10	Database Search	IOC, VOC
40	General Contractor	6-10	Database Search	VOC, SOC
41	Delivery Service	6-10	Database Search	VOC, SOC
42	Batteries-Wholesale	6-10	Database Search	IOC
43	Cleaners	6-10	Database Search	VOC
44	Home Manufacturing	6-10	Database Search	IOC, VOC, SOC
45	Outdoor Adventure	6-10	Database Search	VOC, SOC
46	Automotive-Supplies	6-10	Database Search	VOC, SOC
47	Photo Finishing	6-10	Database Search	IOC, VOC
48	Outdoor Adventure	6-10	Database Search	VOC, SOC
49	CERCLA	6-10	Database Search	IOC, VOC, SOC
50	SARA	6-10	Database Search	IOC, VOC
51	SARA	6-10	Database Search	VOC, SOC
52	SARA	6-10	Database Search	VOC, SOC

IOC = inorganic chemical, VOC = volatile organic chemical, SOC = synthetic organic chemical

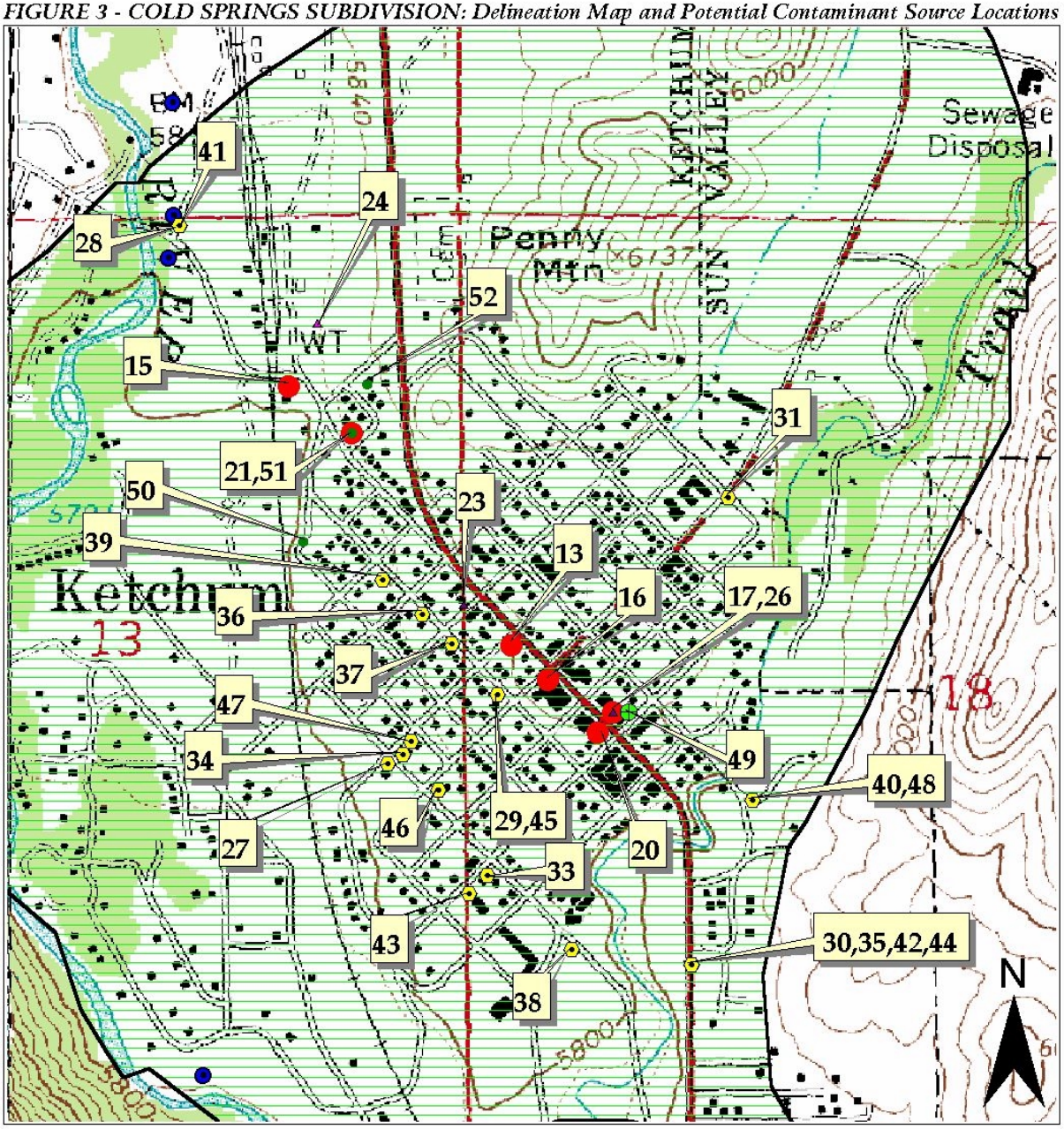
FIGURE 2 - COLD SPRINGS SUBDIVISION: Delineation Map and Potential Contaminant Source Locations





PWS# 5070020
WELL

FIGURE 3 - COLD SPRINGS SUBDIVISION: Delineation Map and Potential Contaminant Source Locations



LEGEND (see glossary)

Time of Travel Zones
- 1B (3 Yr TOT)
- 2 (6 Yr TOT)
- 3 (10 Yr TOT)

- Wellhead
- Enhanced Inventory
- Toxic Release Inventory
- CERCLIS Site
- RICRIS Site
- Business Mailing List
- Dairy
- LUST Site
- Closed UST Site
- Open UST Site
- NPDES Site
- Mine
- AST
- Recharge Point
- SARA Title III Site (EPCRA)
- Injection Well
- Group1 Site
- Cyanide Site
- Landfill
- Wastewater Land App.Site

IDAHO DEPARTMENT OF ENVIRONMENTAL QUALITY

PWS# 5070020
WELL

Section 3. Susceptibility Analyses

The well's susceptibility to contamination was ranked as high, moderate, or low risk according to the following considerations: hydrologic characteristics, physical integrity of the well, land use characteristics, and potentially significant contaminant sources. The susceptibility rankings are specific to a particular potential contaminant or category of contaminants. Therefore, a high susceptibility rating relative to one potential contaminant does not mean that the water system is at the same risk for all other potential contaminants. The relative ranking that is derived for each well is a qualitative, screening-level step that, in many cases, uses generalized assumptions and best professional judgement. The following summaries describe the rationale for the susceptibility ranking.

Hydrologic Sensitivity

Hydrologic sensitivity was rated high for Cold Springs Subdivision drinking water system (see Table 2). Multiple factors increase the likelihood of movement of contaminants from the surface to the aquifer and lead to this high score. The soils within the delineation are classified as moderate to well drained. The depth to the first water is 35 feet, much less than the critical value of 300 feet. Finally, the existing low permeability units do not have a cumulative thickness greater than 50 feet. The Cold Springs Subdivision well log shows that the vadose zone (zone from land surface to the water table) is made up of gravel set in clay which will reduce the downward movement of contaminants.

Well Construction

Well construction directly affects the ability of the wells to protect the aquifer from contaminants. The Cold Springs Subdivision drinking water system consists of one well that extracts groundwater for domestic uses. The system construction score was moderate (Table 2). A Drinking Water Supply Report completed in 1997 showed that the wellhead and sanitary seals were in substantial compliance with regulations. The report also indicated there was not adequate protection from surface flooding.

The Cold Springs Subdivision well log shows that the casing and annular seal do extend into a low permeability unit. The well was drilled to 84 feet below ground surface (bgs) into limestone and 12-inch casing was installed throughout. The water table was identified at 35 feet bgs. Knife perforations were installed from 45 feet bgs to 65 feet bgs. A surface seal was installed to a depth of 20 feet bgs in a `gravel set in clay' layer. Limestone rock was identified at 74 feet bgs.

Though the well may have been in compliance with standards when it was drilled in 1976, current public water system (PWS) well construction standards are more stringent. The IDWR Well Construction Standards Rules (1993) require all PWSs to follow IDEQ standards as well. IDAPA 58.01.08.550 requires that PWSs follow the Recommended Standards for Water Works (1997) when during construction. Table 1 of the Recommended Standards for Water Works (1997) states that 12-inch casing requires a thickness of 0.375 inches. The Cold Springs Subdivision well used 0.250-inch thick casing. The Standards state that screens will be installed and have openings based on sieve analysis of the formation. The Cold Springs Subdivision well used knife perforations. Standard 3.2.4.1 requires all PWSs to have yield and drawdown tests that last "24 hours or until stabilized drawdown has continued for six hours at 1.5 times" the design pumping rate.

Based on nearby well logs and previous studies of the area (Castelin and Winner, 1975; Frenzel, 1989; Brockway and Kahlown, 1994), the Cold Springs Subdivision well is most likely completed in the fluvioglacial (river and glacier deposited) sediments comprises of fine to coarse-grained gravel that have considerable quantities of water available for use.

Potential Contaminant Source and Land Use

The well rated moderate for inorganic chemicals (IOCs) (e.g., nitrate), synthetic organic chemicals (SOCs) (e.g., pesticides), and volatile organic chemicals (VOCs) (e.g., petroleum products). The well rated low for microbial contaminants. Commercial and industrial land uses in the delineated source area contributed the largest numbers of IOC, VOC, and SOC points to the contaminant inventory rating. The Big Wood River and Highway 75 could potentially contribute IOC, VOC, SOC, and microbial contaminants to the well.

Final Susceptibility Ranking

Because it demonstrate that a pathway for contamination already exists, detections above drinking water standard Maximum Contaminant Levels (MCLs), any detection of a VOC or SOC, or a detection of total coliform bacteria or fecal coliform bacteria will automatically give a high susceptibility rating to a well despite the land use of the area. In September 1993, the SOC Polychlorinated Biphenyls (PCBs) was detected above the MCL. Additionally, hydrologic sensitivity and system construction scores are heavily weighted in the final scores. Having multiple potential contaminant sources in the 0 to 3-year time of travel zone (Zone 1B) contributes greatly to the overall ranking as well. In this case, the well rates moderate for VOC, IOC, and microbial contaminants.

Table 2. Summary of Cold Springs Subdivision Susceptibility Evaluation

Well	Susceptibility Scores										
	Hydrologic Sensitivity	Contaminant Inventory				System Construction	**Final Susceptibility Ranking**			
		IOC	VOC	SOC	Microbials		IOC	VOC	SOC	Microbials
Well	H	M	M	M	L	M	M	M	H*	M

H = High Susceptibility, M = Moderate Susceptibility, Low Susceptibility
IOC = inorganic chemical, VOC = volatile organic chemical, SOC = synthetic organic chemical
H*: Denotes detection of SOC in tested drinking water

Susceptibility Summary

Water chemistry data show that no type of contamination currently threatens Cold Springs Subdivision drinking water system. However, the well shows a high susceptibility to SOC contamination from nearby potential contaminant sources (Table 1). Lowering the system construction score through compliance with the recommendations of the 1997 IDEQ Drinking Water Supply Report will help protect the well water from contamination from flooding events.

The well in the Cold Springs Subdivision system probably takes water from the alluvial (river deposited) aquifer that comprises the valley floor. The valley floor is ½ mile to 1½ miles in width. The depth of

the valley fill in the area of Cold Springs Subdivision is approximately 60 to 100 feet below land surface (Castelin and Winner, 1975). The groundwater and surface water systems are hydraulically connected and the hydraulic potential within the aquifer does not vary greatly. Recharge is primarily from precipitation, tributary valley underflow, and canal and stream seepage losses (Luttrell and Brockway, 1984). Water quality problems have been attributed to sewage treatment facilities, mining, construction, and agriculture (Castelin and Winner, 1975).

Section 4. Options for Source Water Protection

The susceptibility assessment should be used as a basis for determining appropriate new protection measures or re-evaluating existing protection efforts. No matter what the susceptibility ranking a source receives, protection is always important. Whether the source is currently located in a "pristine" area or an area with numerous industrial and/or agricultural land uses that require education and surveillance, the way to ensure good water quality in the future is to act now to protect valuable water supply resources.

An effective source water protection program is tailored to the particular local source water protection area. A community with a fully developed source water protection program will incorporate many strategies. For Cold Springs Subdivision, source water protection activities should focus on sustaining and implementing practices aimed at wellhead protection. Issues raised in the 1997 Drinking Water Supply Report should be addressed. Other practices aimed at reducing the movement of contaminants within the designated source water areas should be investigated. Disinfection practices could be implemented if microbial contamination ever occurred. Continued vigilance in keeping the wells protected from surface flooding can also keep the potential for contamination reduced. With the direct connection between the surface water and groundwater systems, any surface water discharges to the Big Wood River should be adequately monitored. Though agricultural activities are currently not a major land use, the highly permeable nature of the soils and the movement rates of the water through the aquifer could make agricultural chemical leaching a concern. Most of the delineated areas are outside the direct jurisdiction of Cold Springs Subdivision. Partnerships with state and local agricultural agencies, county elected officials, and industry groups should be established and are critical to success. Due to the time involved with the movement of groundwater, wellhead protection activities should be aimed at long-term management strategies even though these strategies may not yield results in the near term.

Assistance

Public water supplies and others may call the following IDEQ offices with questions about this assessment and to request assistance with developing and implementing a local protection plan. In addition, draft protection plans may be submitted to the IDEQ office for preliminary review and comments.

Twin Falls Regional IDEQ Office (208) 736-2190

State IDEQ Office (208) 373-0502

Website: http://www2.state.id.us/deq

Water suppliers serving fewer than 10,000 persons may contact John Bokor, Idaho Rural Water Association, at (208) 743-6142 for assistance with wellhead protection strategies.

POTENTIAL CONTAMINANT INVENTORY
LIST OF ACRONYMS AND DEFINITIONS

AST (Aboveground Storage Tanks) – Sites with aboveground storage tanks.

Business Mailing List – This list contains potential contaminant sites identified through a yellow pages database search of standard industry codes (SIC).

CERCLIS – This includes sites considered for listing under the **Comprehensive Environmental Response Compensation and Liability Act (CERCLA)**. CERCLA, more commonly known as Superfund is designed to clean up hazardous waste sites that are on the national priority list (NPL).

Cyanide Site – DEQ permitted and known historical sites/facilities using cyanide.

Dairy – Sites included in the primary contaminant source inventory represent those facilities regulated by Idaho State Department of Agriculture (ISDA) and may range from a few head to several thousand head of milking cows.

Deep Injection Well – Injection wells regulated under the Idaho Department of Water Resources generally for the disposal of stormwater runoff or agricultural field drainage.

Enhanced Inventory – Enhanced inventory locations are potential contaminant source sites added by the water system. These can include new sites not captured during the primary contaminant inventory, or corrected locations for sites not properly located during the primary contaminant inventory. Enhanced inventory sites can also include miscellaneous sites added by the Idaho Department of Environmental Quality (IDEQ) during the primary contaminant inventory.

Floodplain – This is a coverage of the 100year floodplains.

Group 1 Sites – These are sites that show elevated levels of contaminants and are not within the priority one areas.

Inorganic Priority Area – Priority one areas where greater than 25% of the wells/springs show constituents higher than primary standards or other health standards.

Landfill – Areas of open and closed municipal and non-municipal landfills.

LUST (Leaking Underground Storage Tank) – Potential contaminant source sites associated with leaking underground storage tanks as regulated under RCRA.

Mines and Quarries – Mines and quarries permitted through the Idaho Department of Lands.)

Nitrate Priority Area – Area where greater than 25% of wells/springs show nitrate values above 5mg/l.

NPDES (National Pollutant Discharge Elimination System) – Sites with NPDES permits. The Clean Water Act requires that any discharge of a pollutant to waters of the United States from a point source must be authorized by an NPDES permit.

Organic Priority Areas – These are any areas where greater than 25 % of wells/springs show levels greater than 1% of the primary standard or other health standards.

Recharge Point – This includes active, proposed, and possible recharge sites on the Snake River Plain.

RICRIS – Site regulated under **Resource Conservation Recovery Act (RCRA)**. RCRA is commonly associated with the cradle to grave management approach for generation, storage, and disposal of hazardous wastes.

SARA Tier II (Superfund Amendments and Reauthorization Act Tier II Facilities) – These sites store certain types and amounts of hazardous materials and must be identified under the Community Right to Know Act.

Toxic Release Inventory (TRI) – The toxic release inventory list was developed as part of the Emergency Planning and Community Right to Know (Community Right to Know) Act passed in 1986. The Community Right to Know Act requires the reporting of any release of a chemical found on the TRI list.

UST (Underground Storage Tank) – Potential contaminant source sites associated with underground storage tanks regulated as regulated under RCRA.

Wastewater Land Applications Sites – These are areas where the land application of municipal or industrial wastewater is permitted by IDEQ.

Wellheads – These are drinking water well locations regulated under the Safe Drinking Water Act. They are not treated as potential contaminant sources.

NOTE: Many of the potential contaminant sources were located using a geocoding program where mailing addresses are used to locate a facility. Field verification of potential contaminant sources is an important element of an enhanced inventory.

Where possible, a list of potential contaminant sites unable to be located with geocoding will be provided to water systems to determine if the potential contaminant sources are located within the source water assessment area.

References Cited

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Attachment A

Cold Springs Subdivision Susceptibility Analysis Worksheet

The final scores for the susceptibility analysis were determined using the following formulas:

1) VOC/SOC/IOC Final Score = Hydrologic Sensitivity + System Construction + (Potential Contaminant/Land Use x 0.2)

2) 2) Microbial Final Score = Hydrologic Sensitivity + System Construction + (Potential Contaminant/Land Use x 0.35)

Final Susceptibility Scoring:

0 - 5 Low Susceptibility

6 - 12 Moderate Susceptibility

≥ 13 High Susceptibility

Ground Water Susceptibility Report Public Water System Name : COLD SPRINGS SUBD Well# : WELL

Public Water System Number 5070015 09/28/2000 4:04:38 PM

1. System Construction		SCORE
Drill Date	07/21/1976	
Driller Log Available	YES	
Sanitary Survey (if yes, indicate date of last survey)	YES	1997
Well meets IDWR construction standards	NO	1
Wellhead and surface seal maintained	YES	0
Casing and annular seal extend to low permeability unit	YES	0
Highest production 100 feet below static water level	NO	1
Well located outside the 100 year flood plain	NO	1
Total System Construction Score		3

2. Hydrologic Sensitivity		
Soils are poorly to moderately drained	NO	2
Vadose zone composed of gravel, fractured rock or unknown	NO	0
Depth to first water > 300 feet	NO	1
Aquitard present with > 50 feet cumulative thickness	NO	2
Total Hydrologic Score		5

3. Potential Contaminant / Land Use - ZONE 1A		IOC Score	VOC Score	SOC Score	Microbial Score
Land Use Zone 1A	RANGELAND, WOODLAND, BASALT	0	0	0	0
Farm chemical use high	NO	0	0	0	
IOC, VOC, SOC, or Microbial sources in Zone 1A	YES	NO	NO	YES	NO
Total Potential Contaminant Source/Land Use Score - Zone 1A		0	0	0	0
Potential Contaminant / Land Use - ZONE 1B					
Contaminant sources present (Number of Sources)	YES	6	7	8	2
(Score = # Sources X 2) 8 Points Maximum		8	8	8	4
Sources of Class II or III leacheable contaminants or	YES	0	2	2	
4 Points Maximum		0	2	2	
Zone 1B contains or intercepts a Group 1 Area	NO	0	0	0	0
Land use Zone 1B	Less Than 25% Agricultural Land	0	0	0	0
Total Potential Contaminant Source / Land Use Score - Zone 1B		8	10	10	4
Potential Contaminant / Land Use - ZONE II					
Contaminant Sources Present	YES	2	2	2	
Sources of Class II or III leacheable contaminants or	YES	0	1	0	
Land Use Zone II	Less than 25% Agricultural Land	0	0	0	
Potential Contaminant Source / Land Use Score - Zone II		2	3	2	0
Potential Contaminant / Land Use - ZONE III					
Contaminant Source Present	YES	1	1	1	
Sources of Class II or III leacheable contaminants or	YES	1	1	0	
Is there irrigated agricultural lands that occupy > 50% of	NO	0	0	0	
Total Potential Contaminant Source / Land Use Score - Zone III		2	2	1	0
Cumulative Potential Contaminant / Land Use Score		12	15	13	4
4. Final Susceptibility Source Score		10	11	11	10
5. Final Well Ranking		Moderate	Moderate	Moderate	Moderate